

09045705 072601

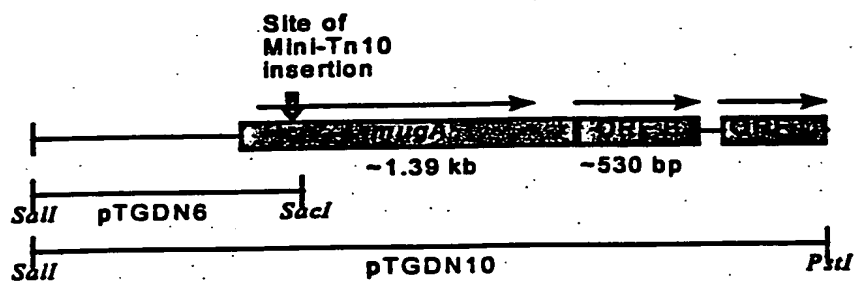


Fig. 1

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1 GTGACTTAT TGCATTGATG GCGTACATGG TAGTCCATC CTTCCTTTTC TAACAAGCUT TGTATAAAAG  
71 CTTCCTCCTT TTCAATCAAT TGAACACAACT ACTCATGATT TTTCCTACTT CCGGAAAGGG AAAAGTGAAG  
141 ATAGCTTTTG AGATCAGCCT GTTCTAGCAG CTTTTCATG ATCTTTTTCG TCGTTAGGTT TTGAAAAATC  
211 TGACDACTOC GTTTGTATTO CAACAAGCTA AGTGGATCCA ATATCTCTAT TTGATAATAA AACTOCTOCT  
281 TGTCTTTGCT ATATCCTOTO AATTCCAGAG TGTACATAT AACTGAAAAA AAAGCCTTTC CAGATCTAA  
351 TTGTAAGGAC ACACAACAG CTTTACCTAG GTTTTGTGTA TCGATCTCCA TTTTTCGCGC GATGGAAGCG  
421 GAAACTGAC ACCGCGCGGA TACGCTTTTC TCTCGGATTA ATTGCTGAC AATAAAMCTT TTGCTATCTG  
491 AAAGCTTAAT GGTGAGGAG CCGGTTTGTG CTCTTAATTC GTTACTOCTC ATATTCAATT AATTCACTAT  
561 TAAATAAACA GTTCTAAAGG GCTGTTTATG GGTGGAATAT TCGAAATAT CACATAATAA TTGATCTAT  
631 TATTACTTGC TGTATTGTA TCAACTTTCA TGTCTATAC ATGTAATATA TTGGAATTA GACCTTAAT  
701 CAAGGTAAAT TGTCTATTA ATTATTATCT GAATAATATG TAATCGATTG CTTTGTGTTT ATTTTATGT  
771 TTGTTCAIT TTAAATGAG GTGAGCTTGT GCATTCATAT TTTTATGAT GACAAATCT TTGATGAAGT  
841 ATTAAGATA TTGTAATOC ATGAGGCGTT TCGTGTATTT TTTTATTA AATCATAA AATCAACAA  
911 TATATGTTAT TTGTGTCCT TTATAGTGT TCTTTAAAG AGTGAAGATG ACCTAAAGGT CCGCTAAATA  
981 TCGGTAAAT TCGCATGCT ATAAATCACC TCAAGATAC ACTATTGCGA ~~AAATGACAAA TATTCACCTT~~  
1051 ~~GTATGAAAC~~ ~~AAATATTA~~ GATGTTTGT TTCTGCGAAA AATAAAAAAT TTTCGTTG AATAACTCA  
1121 AGCGCTTAG CTTTTCCTT TATCTAAAA TACAGGAAT AGGATGGA GTTAATTGAC ACTTAAGCTA  
1191 ATAGTCAACC TAACAGAGCA ~~CGAAGCTATG~~ <sup>S-D</sup> ~~CGAAGCTATG~~ <sup>→ ORF A/mmp4</sup> CTTTGTCAA AGCATCAAT TGAGCAACTT TCTAAAGCTC  
1261 TGAGTGATGA TTGATCTGT GCGGTTTATC TTAAGTGA AAAAAAGTCT TTTCGCGCAT TACGTATGA  
1331 ATTAATGTC GCGCAAGCTO CCGTCCGTAA GCTAAGTCAA AGCGTAGTGT CTGAGGAGAG AGATCGTTA  
1401 CAAGAGCCA TGTCTAAATA AGTGAAGAT TGTCTGAC AGTTTGTAGG AACGTTTTC AAAACAACCT  
1471 AGAGATATGG AGCTCATCTC ATGTTTGTG GCTGCTCAAT TCTCTGGA TACCACATTA GAAAGTCTG  
1541 CGAATAGCT TGAGTGTGTA CCGGATTTAA GTGAGAGCA CTGAGATCAC CTCAGCGCTO TACTACCAAT  
1611 TGAAGCGCTC AATCTGATG ATGATAAGGG CAAGGAAAGA GAGCAAGCAG ATCGGAAAGT TAAAGCATTT  
  
1681 TTCCAAGTAG TCGCGGATAG CGAGGAAAGC TCGATCTCT ATCGCGCGGT CCGTCAAGCTO CCGTAGTGG  
1751 CGGAAAGTAC GTTTTGTGAC TTTCAAAGTG CAGAGGAGAA AGCGGAAATC AGCGCACTGA AATCTATCT  
1821 TACGAGCAGG GTGCGCGAAG AGCGTTTTCG AATTCATTC AGATGGAAG AGCGCAAGCG TTGTGTACC  
1891 CAATTAGATC GTTTGTGAG GTTGTGAGC ACTAAGTGT ATCTCTAGG CAGTCAAGT AGCAACTTGG  
1961 GATTTCGAA GTCACTGCTT AGCGTGTG AAGCGCTTT GTTCACTA AGTGAATTA AGTAGCACC  
2031 GAAAGCGGAG CGCAAGACAG TAGAGCAAGA GTTTCGGAAG AGTTCAATTT CTGAAGGGA GCTGCAAGC  
2101 CATATGATA CAAGACATAT AGAGCGAATA CCGATGCGAT CAGAGCAGGC TCAGAGGTA AGCAACACT  
2171 TACAGCGAG AAAGCTCTGT GAGTGGGTA ATTAAGCAA TATGAAGCGA GACTTAGCTT TCGATTGTT  
2241 GAGAGAAATC TGTGATTAT TTGCGGAGAG CGAAGCGCAT AGCGCAATTT CATTTTGT AGAAAAAGCG  
2311 ATTGATGAG GATATTATC CTAGCTGAG TTGCTGAGAG AATGATGTC GGAACAAAAC GGTGAGCGTC  
2381 TTAGTAGAT TTTAATGCC GCGGATGGA ATCATCTGGA TCGGTTTGT CTGCGGAGAG TGAGTACTOC  
2451 AACGTTGCGC ATTGAAGCG CGCAACACGC TCAAGCGAG CTTGCGTTT CGGATCGCGG AAGTGTGAA  
2521 GAGCATGTAT CTCAGATTC CCGTGTAGAT AGCGATCTA AGCAAGATCA AAAAGCACAA TCATCGCTA  
2591 CTTGCGCTCT GAGTGTGTA TTGTTTGA <sup>S-D</sup> ~~AAAATAGGA~~ <sup>→ ORF B</sup> ~~AAAATAGGA~~ <sup>→ ORF B</sup> CAGTATTA CATCGGTGA  
2661 AGCGGCTTC AAGTGAAGG CGCAGCGACT ATCGTCAAG TAGAAAGCGC TGAAGGTAAA AATGAGCGTT  
2731 GTTTGCAAT CAAGCTTAC TCTGCGGTG GCGTGTAA CTTGCTATG GACATCGTA AGCGCACAA  
2801 TCGGATTTCA GCGATGTTG GCGTAAGCGA AGTTAGGTA ACTAAGGAG TCGATGCTC TTCTGAAGAC  
2871 CTACTGCTT ATTTATCAA CCGAGTAAA GAGCGTAAA CTGTTGAGT TGCATTACT AAGCGCTCTA  
2941 AGGATGCTA AGTTCAGAC GTTACTTTC AAGTTAGCT AGAAAAACA CTTTATTT CTTACAGCT  
3011 GAGCGGACT GAGCGATCTC AAGCGTAGA GAGCTATCT CTTCTTACA CTCTATTC TCAGAGCAT  
3081 CACTATGGA AAGAGGTGG TGAATACAA AGCGTGTG TTGACTTA CGAGTACCG AGCGGAAAG  
3151 TGACTTCTG TAAATATTC TTTCATTAGA ~~CATGCGAGT~~ ~~TAATGCGAT~~ ~~GTCTATTTCA~~ ~~TGATATCTC~~  
3221 ~~ATTTAGGAC~~ <sup>S-D</sup> ~~ACCGTATG~~ <sup>→ ORF C</sup> ~~CAATGAATC~~ ~~ACAACATA~~ ~~CGCGTTAT~~ ~~AGAAAGGTT~~ ~~CAAGTATC~~  
3291 CTATGAGTT GAAAGGAAT GCGCGTAAA GAGGAAAGAG CTGCGTTG TTGTTGCGT CATGCGGAG  
3361 TTTCAGGAC ACAAGCAGA ATCAGAAAA GTTGAATTAG AAGAGCGAGA GTTCAGCGT ATCGATAAG  
3431 ACAACTTGA TACAGTATG GCGCAAAATC AGCGCGCTCT TTGATACAG GTTGAATAA AGCTTCTAA  
3501 TGATGATAG CAGTTTGAAG TGAAGTGAAG CTTGCGTTG ATGAAGGATT TCGAGCAGA GAGCTTAGTT  
3571 GATNAATTT AGCGCTTAA

Fig 2

1 MPLSKHQIEQLSKPLSDDSGVYLKLEKSAFRPLRNEFNVAQTALRKLSQNPSADERDALQEACLNKWK  
71 ILSDSLYEQFSKTTTRDIELISWFVAAQFLDITLESAAANSLEWLADLSEKHWDHLNPVLPVETLKSDDDK  
141 GKEREQADAKVKAFFQLVGDSEESSILYAPVLQLPLVGEVTFDFQSAERKGEISQLKSMLTTTVAQER  
211 FAIQFKMENAKRCVTQLDRLSALVSTKCHSLGSQSTNFGFAKSLLTRVENALVHLSGIKLAPKAEAKTVE  
281 QEVAESSVSEGELPSHMDTKHIERIPMASEQAQTVSQHLHAGNLSELGNLNNMNRDLAFHLLREVSDYFR  
351 QSEPHSPISFLLEKAIRWGYLSLPELLREMMSEQNGDALSTIFNAAGLNHLDQVLLPEVSTPTVGIESPQ  
421 TPQAKPSVSDPRSVEEHVSQTSPVDTQSKQDQKPQSSATSALSW\*

Fig. 3a

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1 MASIYMRVSGLQVEGAATIGQLETAEGKNDGWFAINSYSWGGARNVAMDIGNGTNADSGMVGVSSEVSVTK  
71 EVDGASEDLLSYLFPKDGKTVEVAFTKPSNDGQGADVVFQVKLEKARLVSYNVSGTDGSPYESLSLS  
141 YTSISQKHYY EKEGGELQSGGVVTDLPTGKMTSGK\*

Fig. 3b

1 MALNSQHKRVSKNRVSITYDVETNGAVKTKELPFVVGIGDFSGHKPESEKVDLEEREFTGIDKDNFDTV  
71 MGQIHPRLSYKVDNKLANDDSQFEVNLRLSMKDFHPENLVDXIEPL

Fig. 3c